

Amir Ghodrati

KU Leuven
✉ amir.ghodrati@esat.kuleuven.be
📁 homes.esat.kuleuven.be/~aghodrat
✉ ghodrati@gmail.com

Objectives

Working on new, cutting-edge topics in computer vision.

Finding an explanation to my big question: How does a human brain work?

Don't worry, be happy!

Educational Background

2013

PhD student, *PSI, Department of Electrical Engineering (ESAT), KU Leuven, Leuven, Belgium*, Supervisor: Tinne Tuytelaars
Thesis title: Exploiting Appearance-based Representations for Recognition.

2011
2013

Pre-doc student, *Department of Electrical Engineering, KU Leuven, Leuven, Belgium*, Supervisor: Tinne Tuytelaars.

2007
2010

MSc. in Artificial Intelligence, *Department of Computer Engineering, Sharif University Of Technology, Tehran, Iran*, GPA: 17.91/20, Supervisor: Shohreh Kasaei
Thesis title: Human Action Recognition Using Spatio-Temporal Local Features.

2003
2007

BSc. in Computer Software Engineering, *Department of Computer Engineering, Amir kabir University Of Technology, Tehran, Iran*, GPA: 15.22/20, Supervisor: Hossein Pedram
Thesis title: A study on periodic characteristic of TCP flows in frequency domain and simulating it in against of DoS attacks.

1999
2003

Diploma in Math and Physics, *National Organization for Development of Exceptional Talents, Shahrood (NODET), Iran*, GPA: 18.89/20..

Awards and Honors

2007 Ranked 10th in nationwide graduate entrance exam in Computer Engineering-Artificial Intelligence of Iranian Universities among 10,000 applicants.

2007 Finalist of 12th National Collegiate Scientific Olympiad in Computer Engineering.

2003 Ranked 240th in nationwide university entrance exam among 450,000 applicants for Engineering.

1996 & 1999 Selected to be taught at National Organization for Development of Exceptional Talents, Shahrood, Iran.

Publications

Roeland De Geest, Efstratios Gavves, Amir Ghodrati, Zhenyang Li, Cees Snoek, and Tinne Tuytelaars. Online action detection. In *ECCV*, 2016.

Amir Ghodrati, Xu Jia, Marco Pedersoli, and Tinne Tuytelaars. Towards automatic image editing: Learning to see another you. In *BMVC*, 2016.

Basura Fernando, Efstratios Gavves, José Oramas, Amir Ghodrati, and Tinne Tuytelaars. Rank pooling for action recognition. *TPAMI*, 2016.

Amir Ghodrati, Ali Diba, Marco Pedersoli, Tinne Tuytelaars, and Luc Van Gool. Deepproposal: Hunting objects by cascading deep convolutional layers. In *ICCV*, 2015.

Basura Fernando, Efstratios Gavves, Jose M Oramas, Amir Ghodrati, and Tinne Tuytelaars. Modeling video evolution for action recognition. In *CVPR*, 2015.

Amir Ghodrati, Xu Jia, Marco Pedersoli, and Tinne Tuytelaars. Swap retrieval: Retrieving images of cats when the query shows a dog. In *ICMR*, 2015.

Amir Ghodrati, Marco Pedersoli, and Tinne Tuytelaars. Is 2d information enough for viewpoint estimation?. In *BMVC*, 2014.

Amir Ghodrati, Marco Pedersoli, and Tinne Tuytelaars. Coupling video segmentation and action recognition. In *WACV*, 2014.

Amir Ghodrati and Shohreh Kasaei. Human action categorization using discriminative local spatio-temporal feature weighting. *Intelligent Data Analysis*, 2012.

Research Experiences

2011-2016 PSI, ESAT, KU Leuven

During my PhD. I tackled different range of computer vision challenges including action recognition, viewpoint estimation, object/action proposal generation and image generation. In my works, I have mostly exploited state-of-the-art representations to improve the performance of the corresponding task. During this period I published several papers in leading computer vision conferences like ICCV, CVPR, ECCV and BMVC.

2007-2010 Image Processing Laboratory (IPL), Sharif University of Technology

During my master, I did many course projects including facial expressions recognition using supervised learning algorithms, face detection and recognition, image change detection, English character recognition using Self Organization Maps and solving "Traveling Merchant" problem using reinforcement learning. Also for my thesis, I worked on action recognition. The main purpose of this research was to develop a method to recognize several human action categories using local features.

2007-2010 Amir kabir University of Technology

My research goal was to identify normal TCP traffic against denial of services attacks using spectral analysis of TCP packets round trip time.

Professional Experiences

- 2010-2011 Designer and Developer, Samim Rayaneh Corp.
In this project we used image-processing and machine learning techniques to detect and recognize license plates of the cars and also estimate their velocity in the highway. The main parts of this project was to grab frames, detect license plates in each frame, segment characters of the plates and finally recognize characters and numbers. The components of this projects are a camera with NIR filters, Infra-red illuminators, our LPR software, a database to record/fetch data and finally a web application for the end user.
- 2009-2010 Researcher, Research center of Amir kabir University
In this project, We embedded a Real Time Operating System (RTOS) in an evaluation board and developed an application layer for control, handle and record data flows on the board.

Teaching Experiences

- 2014-2016 Pattern Recognition and Image Understanding course, Teacher Assistant for graduate students, KU Leuven.
- Spring 2009 Digital Video Processing course, Teacher Assistant for graduate students, Sharif University Of Technology.
- Fall 2008 Technical Presentation course, Teacher Assistant for undergraduate students, Sharif University Of Technology.
- Spring 2007 Artificial Intelligence course, Teacher Assistant for undergraduate students, Amir kabir University Of Technology.
- 2006 - 2009 Instructor of undergraduate courses like Theory of Formal Languages And Automata, Computer Architecture and Digital Design for applicant as individual education.

Seminars/Talks

- 2015 DeepProposal: Hunting Objects by Cascading Deep Convolutional Layers - VISICS Lab, Leuven, Belgium
- 2014 Is 2D Information Enough For Viewpoint Estimation? - VISICS Lab, Leuven, Belgium
- 2014 Coupling video segmentation and action recognition - VISICS Lab, Leuven, Belgium
- 2009 Detecting Irregularities In Images and Video - Sharif University Of Technology, Iran
- 2008 Handwritten Segmentation and Recognition Techniques - Sharif University Of Technology, Iran

Student supervision

- 2015-2016 Master thesis co-supervision, Weakly supervised object detection using text (Azeem Fowad Shahid), KU Leuven.

Skills

Programming MATLAB, C++, Lua, Python, \LaTeX
Tools GitHub, BitBucket
Platforms Linux, Windows

Version Control and Repositories.

Languages

Persian Native
English Fluent
Spanish Familiar
Arabic Familiar

References

Tinne Tuytelaars

Professor
ESAT - KU Leuven
Leuven, Belgium
✉ tinne.tuytelaars@esat.kuleuven.be
☎ +32 16 374083

Marco Pedersoli

Post-Doctoral Researcher
INRIA - LEAR
Grenoble Rhone-Alpes, France
✉ marco.pedersoli@inria.fr